Amendments to the Claims:

Please amend claims 56 and 79 as follows.

Please add new claim 82 as follows.

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

1 to 55 (cancelled).

56. (currently amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) an isolated nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO: 1 or the complete complement thereof;

(b) an isolated nucleic acid molecule having at least [~~85%~~] 95% nucleotide sequence identity with the entire contiguous open reading frame of SEQ ID NO: 1 and encoding a protein capable of phosphorylating ribosomal S6 protein; [~~and~~]

(c) an isolated nucleic acid molecule which hybridizes to the nucleotide sequence of SEQ ID NO: 1 or the complement thereof under conditions which employ 0.1x SSC at 68°C and which encodes a protein capable of phosphorylating ribosomal S6 protein; and

[~~(c)~~] (d) an isolated nucleic acid molecule which encodes a protein comprising the amino acid sequence of SEQ ID NO: 2.

57. (cancelled)

58. (previously presented) An isolated nucleic acid molecule which encodes a fragment of a protein comprising the amino acid sequence of SEQ ID NO: 2 wherein the fragment is capable of phosphorylating ribosomal S6 protein.

59. (previously presented) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule comprises nucleotides 77-1561 of SEQ ID NO: 1.

60. (previously presented) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule consists of nucleotides 77-1561 of SEQ ID NO: 1.

61. (previously presented) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule consists of nucleotides 77-1564 of SEQ ID NO: 1.

62. (previously presented) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule comprises nucleotides 116-1561 of SEQ ID NO: 1.

63. (previously presented) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule consists of nucleotides 116-1561 of SEQ ID NO: 1.

64. (previously presented) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule consists of nucleotides 116-1564 of SEQ ID NO: 1.

65. (previously presented) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule contains a nucleotide substitution at a position corresponding to nucleotides 1277, 1278 or 1279 of SEQ ID NO: 1.

66. (previously presented) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule encodes a protein comprising an aspartic acid substitution for threonine at amino acid 401 of SEQ ID NO: 2.

67. (cancelled)

68. (previously presented) The isolated nucleic acid molecule of any one of claims 56 and 58-66, wherein the nucleic acid molecule is operably linked to one or more expression control elements.

69. (previously presented) A vector comprising the isolated nucleic acid molecule of any one of claims 56 and 58-66.

70. (previously presented) A host cell transformed to contain the nucleic acid molecule of any one of claims 56 and 58-66.

71. (previously presented) A host cell comprising the vector of claim 69.

72. (previously presented) The host cell of claim 70, wherein said host cell is selected from the group consisting of prokaryotic hosts and eukaryotic hosts.

73. (previously presented) A method for producing a protein comprising the step of culturing a host cell of claim 70 under conditions in which the protein encoded by the nucleic acid molecule is expressed.

74. (withdrawn) A method of determining whether a cell expresses aberrant cellular levels of a nucleic acid molecule of claim 56 comprising:

(a) determining the level of expression of said nucleic acid molecule in a test cell; and

(b) comparing said level of expression to a control, wherein change in expression compared to the control indicates aberrant expression.

75. (withdrawn) The method of claim 74, wherein the level of expression is determined by measuring the level of mRNA.

76. (withdrawn) The method of claim 74, wherein the cell is human.

77. (withdrawn) The method of claim 74, wherein said cell is from a tissue selected from the group consisting of heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, spleen, thymus, prostate, testis, ovary, small intestine, colon or leukocytes.

78. (withdrawn) The method of claim 74, wherein the change in expression is an increase in expression.

79. (currently amended) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule in (b) has at least ~~95~~ 97% nucleotide sequence identity with the entire contiguous open reading frame of SEQ ID NO: 1.

80. (previously presented) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule in (b) has at least 98% nucleotide sequence identity with the entire contiguous open reading frame of SEQ ID NO: 1.

81. (previously presented) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule in (b) has at least 99% nucleotide sequence identity with the entire contiguous open reading frame of SEQ ID NO: 1.

82. (new) The isolated nucleic acid molecule of claim 56, wherein the nucleic acid molecule hybridizes to the nucleotide sequence of SEQ ID NO: 1 or the complement thereof under conditions which employ 0.1x SSC at 68°C.

Summary of the Office Action

1. Claims 56 and 68 to 73 were rejected under 35 U.S.C. 112, first paragraph, as allegedly not reasonably providing enablement for any polynucleotide having at least 85% sequence identity with the entire contiguous open reading from of SEQ ID NO: 1 and encoding a protein capable of phosphorylating ribosomal S6 protein at any position.

2. Claims 58 to 66 and 79 to 81 were indicated to be allowable over the prior art but were objected to since they depend upon rejected claim 56.

Response to the Office Action

The Office Action dated March 22, 2004 has been carefully reviewed and the following amendments and comments are made in response. The Examiner's courtesy in discussing the outstanding rejections with Applicants' attorney on June 17, 2004 via telephone is acknowledged with appreciation. The Applicant appreciates the Examiner's efforts in furthering the prosecution of this application. In this regard, Applicant acknowledges the Examiner's indication that claim language directed to a specific sequence identity and/or hybridization conditions in claim 56 would be allowable.

The amended claims specifically incorporate the claim language indicated as acceptable by the Examiner or are dependent from such claims. Applicant will seek claims for the subject matter encompassed by the canceled subject matter in future divisional and continuation applications. Applicants respectfully submit that the additional claims fall within the subject matter of the elected invention and that no new prohibited matter has been introduced by these claims. While written description support for the substitute claims can be found throughout the specification and in the original claims, examples of specific support for the additional claims can be found in the original claims and specification on page 13, line 25 to page 14, line 21; page 24, lines 17 to 24; and page 37, lines 14 to 29. Upon entry of this amendment, claims 56, 58 to 66, 68 to 73, and 79 to 82 will be pending. Claims 74 to 78 are also pending but have been withdrawn.

Rejection under 35 U.S.C. 112 (first paragraph)

Claims 56 and 68 to 73 were rejected under 35 U.S.C. 112 (first paragraph) as allegedly not reasonably providing enablement for any polynucleotide having at least 85% sequence identity with the entire contiguous open reading from of SEQ ID NO: 1 and encoding a protein capable of phosphorylating ribosomal S6 protein at any position. Applicants have amended these claims without prejudice or